UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,458	02/18/2004	Floyd Backes	160-052	1742

34845 7590 07/29/2008 Anderson Gorecki & Manaras LLP 33 NAGOG PARK ACTON, MA 01720	**EXAMINER** MEW, KEVIN D

ART UNIT	PAPER NUMBER
2616	

NOTIFICATION DATE	DELIVERY MODE
07/29/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

handerson@smmalaw.com
officeadmin@smmalaw.com
cmorrissette@smmalaw.com

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 April 2008*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-6* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Response to Amendment

1.   Applicant's Remarks/Arguments filed on 4/29/2008 has been considered. Claims 1-6 are

currently pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

Application Publication No. US 2004/0054767 A1 by Karaoguz et al. in view of U.S. Publication

2001/0048744 A1 to Kimura et al.

Regarding claim 1, Karaoguz teaches an apparatus in an access point (e.g., access point

115, see FIG. 1) in a wireless communications environment (e.g., wireless network 110)

including multiple access points (e.g., see paragraphs 0019-0021 regarding a plurality of access

points) and stations (e.g., wireless devices 120a-120n), wherein stations (e.g., 120a-120n) gain

network access by associating with one or more of the access points (e.g., 115), comprising:

logic for keeping track of one or more parameters related to the stations in the network

(e.g., gathering and storing statistical information such as location and identity information of the

wireless devices 120-120n, power levels, channel cycling, frequencies, coverage area, traffic

patterns, etc., see paragraph 0024);

logic for evaluating the one or more parameters to produce an evaluation (e.g., see paragraph 0033 regarding location information processor determining the distance range using the gathered or stored information); and

logic for causing a station (e.g., 120a-120n) to become associated with the access point (e.g., 115) based upon the evaluation (e.g., see paragraph 0045 regarding modifying the network to achieve optimized network configuration based upon the location information and statistical information; see also paragraph 0021 regarding a wireless devices receiving coverage from an access point in the geographic area upon the access point powering on, and paragraph 0028 regarding adjusting transmission power levels for optimal network configuration for continued coverage in accordance with the stored information; see also paragraph 0033 regarding location information processor for determining the distance range which is used for causing a station to become associated with an access point).

Karaoguz may not specifically disclose receiving messages from the stations indicative of a request to associate with the access point and logic for selecting, for a cycle, at least one of the stations from which the message was received to become associated with the access point and rejecting, for a cycle, at least one of the stations from which message was received to become associated with the access point based upon loading level evaluation.

However, Kimura, like Karaoguz, also teaches communications between an access point and mobile stations in a wireless environment (Fig. 1), and further, Kimura specifically teaches an access point having an authentication/association processing means to receive association request messages from a mobile station for associating the station to the access point (logic for receiving messages from stations indicative of a request to associate the access point, paragraphs,

0024, 0045 and Fig. 2) and having determinations to authorize a mobile station to become

associated with the access point (logic for selecting, for a cycle, at least one of the stations from

which the message was received to become associated with the access point) and to reject a

mobile station to become associated with the access point (rejecting, for a cycle, at least one of

the stations from which message was received to become associated with the access point based

upon loading level evaluation, paragraph 0052 and Fig. 4).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the

invention was made to apply the acceptance and denial of association request from mobile

stations to access point taught by Kimura to the access point and mobile stations environment of

Karaoguz such that Karaoguz will comprise logic for receiving messages from the stations

indicative of a request to associate with the access point and logic for selecting, for a cycle, at

least one of the stations from which the message was received to become associated with the

access point and rejecting, for a cycle, at least one of the stations from which message was

received to become associated with the access point based upon loading level evaluation.

The motivation to do so is to provide an access point device and its authentication

method which can dramatically improve a wireless LAN system in security level by avoiding

unauthorized access from mobile stations of malicious intruders in a radio-based wireless LAN

system.

Regarding claim 2, Karaoguz teaches logic for receiving messages from stations, wherein

the messages include at least some of the one or more parameters (e.g., see paragraphs 0029-

0038 regarding determining device location, and specifically paragraph 0036 regarding the

wireless device sending a range message acknowledgement).

Regarding claim 3, Karaoguz teaches a parameter is the number of stations associated

with the access point (e.g., inherently represented by the identity information of each wireless

device associated with the access point, see paragraph 0024).

Regarding claim 4, Karaoguz teaches a parameter is the distance of a station (e.g.,

wireless device 120a-120n) from the access point (e.g., 115) (e.g., see paragraphs 0029-0038,

and specifically paragraph 0029 regarding determining a distance range location information of a

wireless device).

Regarding claim 5, Karaoguz teaches at least some of the one or more parameters are

stored in a table (e.g., see paragraph 0040 regarding the information being stored in a data

memory unit within the access point, inherently comprising a table).

Regarding claim 6, as discussed above regarding claims 1-4, Karaoguz teaches an

apparatus in an access point (e.g., access point 115, see FIG. 1) in a wireless communications

environment (e.g., wireless network 110) including multiple access points (e.g., see paragraphs

0019-0021 regarding a plurality of access points) and stations (e.g., wireless devices 120a-

120n), wherein stations (e.g., 120a-120n) gain network access by associating with one or more of

the access points (e.g., 115), comprising:

logic for keeping track of one or more parameters related to stations in the network (e.g., gathering and storing statistical information such as location and identity information of the wireless devices 120-120n, power levels, channel cycling, frequencies, coverage area, traffic patterns, etc., see paragraph 0024);

logic for evaluating the one or more parameters to produce an evaluation (e.g., see paragraph 0033 regarding location information processor determining the distance range using the gathered or stored information); and

logic for causing a station (e.g., 120a-120n) to become associated with the access point (e.g., 115) based upon the evaluation (e.g., see paragraph 0045 regarding modifying the network to achieve optimized network configuration based upon the location information and statistical information; see also paragraph 0021 regarding a wireless devices receiving coverage from an access point in the geographic area upon the access point powering on, and paragraph 0028 regarding adjusting transmission power levels for optimal network configuration for continued coverage in accordance with the stored information; see also paragraph 0033 regarding location information processor for determining the distance range which is used for causing a station to become associated with an access point), in order to gain network access to communicate with other stations via the access point (e.g., see paragraph 0015 regarding, "all communications between the devices 120a, 120b, 120c, 120d ....120n or between the devices and the wired network 105 can go through the node or Access Point 115"). Further, as discussed above regarding claim 2, Karaoguz teaches logic for receiving messages from stations, wherein the messages include at least some of the one or more parameters (e.g., see paragraphs 0029-0038 regarding determining device location, and specifically paragraph 0036 regarding the wireless

device sending a ranger message acknowledgement). Still further, as discussed above regarding

claim 3, Karaoguz teaches a parameter is the number of stations associated with the access point

(e.g., inherently represented by the identity information of each wireless device associated with

the access point, see paragraph 0024). Finally, as discussed above regarding claim 4, Karaoguz

teaches a parameter is the distance of a station (e.g., wireless device 120a-120n) from the access

point (e.g., 115) (e.g., see paragraphs 0029-0038, and specifically paragraph 0029 regarding

determining a distance range location information of a wireless device).

Karaoguz may not specifically disclose receiving messages from the stations indicative of

a request to associate with the access point and logic for selecting, for a cycle, at least one of the

stations from which the message was received to become associated with the access point and

rejecting, for a cycle, at least one of the stations from which message was received to become

associated with the access point based upon loading level evaluation.

However, Kimura, like Karaoguz, also teaches communications between an access point

and mobile stations in a wireless environment (Fig. 1), and further, Kimura specifically teaches

an access point having an authentication/association processing means to receive association

request messages from a mobile station for associating the station to the access point (logic for

receiving messages from stations indicative of a request to associate the access point, paragraphs,

0024, 0045 and Fig. 2) and having determinations to authorize a mobile station to become

associated with the access point (logic for selecting, for a cycle, at least one of the stations from

which the message was received to become associated with the access point) and to reject a

mobile station to become associated with the access point (rejecting, for a cycle, at least one of

the stations from which message was received to become associated with the access point based upon loading level evaluation, paragraph 0052 and Fig. 4).

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply the acceptance and denial of association request from mobile stations to access point taught by Kimura to the access point and mobile stations environment of Karaoguz such that Karaoguz will comprise logic for receiving messages from the stations indicative of a request to associate with the access point and logic for selecting, for a cycle, at least one of the stations from which the message was received to become associated with the access point and rejecting, for a cycle, at least one of the stations from which message was received to become associated with the access point based upon loading level evaluation.

The motivation to do so is to provide an access point device and its authentication method which can dramatically improve a wireless LAN system in security level by avoiding unauthorized access from mobile stations of malicious intruders in a radio-based wireless LAN system.

Response to Arguments

3.   Applicant's arguments filed 4/29/2008 with respect to claims 1-6 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kevin Mew   /K. M./
Examiner, Art Unit 2616

/Chi H Pham/
Supervisory Patent Examiner, Art Unit 2616
7/21/08